- Aland
- 37. (New) The reinforc d flexible laminat strip of Claim 33, wherein the at least one mask layer is three separate layers spaced from one another and respectively adhered to three exposed portions of the continuous strand of wire.
- 38 (New) The reinforced flexible laminate strip of Claim 1, wherein the continuous strand of wire transversely looped back and forth across the strip width is asymmetrical about the longitudinally running center line.

REMARKS

Claims 19-32 have been canceled as they relate to non-elected subject matter.

Claims 1, 2, 13 and 14 have been amended herein. New Claims 33-38 have been added. Therefore, Claims 1-18 and 33-38 remain pending in this application.

I. Election/Restriction

Claims 1-18, drawn to an article were elected without traverse in a telephone conversation with the Examiner. Applicant affirms this election. Accordingly, Claims 19-32, which have been withdrawn from further consideration, have been canceled herein.

II. Rejection under Section 112

Claims 3, 7 and 9 stand rejected under Section 112 for being indefinite due to the lack of antecedent basis for the language "filler material". The dependency of Claim 3 has been changed from Claim 1 to Claim 2 to provide antecedent basis for "filler material". As a result, Claims 7 and 9 are now also definite and clear. Withdrawal of this rejection under Section 112 is now respectfully requested.

III. Rejection of Claims 1, 3-5, 8, 10-17 under Section 102

Claim 1, 3-5, 8, 10-17 stands rejected under Section 102(b) as being anticipated by U.S. Patent No. 5,072,567, issued to Cook et al. The office action states that Cook clearly anticipates the claims. As to claim 14, the office action states that the shape of the bend of the wires is not cl ar.

Cook '567 is the primary ref renc cited in the instant application. Cook teaches a carrier with undulating wire transverse members which are first knitted to one another so that they may be maintained in their spaced relationship to one another. See Col. 4, lines 34-47 and Col. 5, lines 26-35. A plurality of warp strands of textile or other material is run longitudinally along the carrier by knitting or stitching. See Col. 4, lines 40-45. An additional zigzag securing member (4) is also attached to the transverse members (1) by welding. It is the zigzag members of Cook's design which have certain crossing points which allow for limited and controlled amount of extension of the strip. Thus, Cook requires both knitting and another attachment method, such as welding of zigzag members to construct the carrier member.

Since Cook's strip first requires the undulating wire be knitted, certain structural features must be employed by Cook. More specifically, Cook must employ certain structures in its strip so that it can be accommodated by a knitting machine for attachment of knitting to the wire. For example, the undulating wire must be symmetrical about the longitudinal center line along the length of the strip so that the wire can be continuously and smoothly fed through the knitting machine. Also, the transverse members cannot be parallel because the needles would not have sufficient clearance during the knitting process. As can be seen in the figures (e.g. Fig. 3) of Cook '567, the cross-members (1) of the undulating wire are not, in fact, parallel. Each loop is slightly bulbous (not sinusoidal) to allow for needle clearance during knitting. Also, the undulation of the wire cannot be too dense or tight because there must be enough clearance for the needles to pass during the knitting process.

In view of the foregoing, Cook cannot have transverse members which are parallel, too dense or asymmetrical. These required structural features for wire that is to be knitted placed limitations on performance of the strip and poses various problems. For example, the use of non-parallel transverse members will result in irr gular

elongation during extrusion, known as "surging". As a result, the profile of the knitted wire will change and will be inconsistent resulting in shrinkage during the cutting process. Most importantly, non-parallel transverse members pose problems during roll forming such as creating irregular radiuses and inconsistent corners resulting in a poor product.

Also, since knitted wire cannot be densely undulating, there will be limitations in design. For example, there may be a application where more densely undulating wire could solve a structural reinforcement issue. If knitted wire were used, making the undulating wire more dense would not be available to solve the problem at hand.

In contrast to Cook '567, the present invention provides a laminate sealing strip that includes an array of continuously connected clips (in the form of an undulating wire pattern, for example) that optionally includes filler material within the voids defined thereby as well as longitudinally positioned carrier members, which are preferably fibers and affixed to the undulating wire members. The filler in the voids provides an improved sealing strip that avoids the "hungry horse" effect over time when installed. Applicant's invention does not knit the undulating wire at all. As a result, Applicant's invention can take advantage of different design features to accommodate different environments and applications. For example, Applicant's undulating wire can be dense and have transverse members which are parallel to greatly improve roll forming. Also, the wire can be asymmetrical about the longitudinal line running along the length of the strip to customize the profile of the strip. Also, instead of using filler to avoid the hungry horse problem, a mask can be adhered to the wire in a location that is visible to the eye. For example, a mask, such as film, can be bonded to only the right side along the length of the wire if the right side is the side of the strip that facing outwardly from a car trunk. Thus, the hungry horse problem can be selectively targeted and addressed.



The unique f atures of the present invention would not be possible if knitting were employed in any way in Applicant's invention. Therefore, the present invention is completely different than Cook's strip in that Applicant's invention requires the use of longitudinal members, such as fibers to prevent the unwanted longitudinal extension of the strip without requiring the extra step of knitting and the costs associated therewith. Alternatively, as in the claims as amended, a mask member can be employed to simultaneously prevent unwanted longitudinal extension and avoid the hungry horse problem in a specific desired location along the strip.

Claim 1 has been amended to specifically state that the undulating wire is not knitted thereby distinguishing it from Cook. The further use of a cover in Claims 3 and further define Claim 1 and the shapes of the clips in Claims 4 and 5 further define allowable Claim 1 and are, therefore, now allowable. Further, Claims 10-12, which related to selection of carrier materials, depend from now allowable Claim 1, and are now also allowable.

As to Claim 13, Cook fails to disclose the limitation of the transverse members being parallel in a non-knitted wire environment. Unlike Applicant's transverse members, Cook's transverse wire members are not parallel resulting in inaccuracies and irregular elongation during roll forming. Therefore, Cook fails to meet the limitations of Claim 13.

Claim 14, which has been amended to be more clear, requires that that the wire have V-shaped looped ends as in Fig. 4 of Applicant's invention. Such V-shaped looped ends would be advantageous in certain environments. Since Cook employ knitting as a first step, it is not surprising that the wire undulating in a wide looping fashion whereby the wire undulating shape is limited due to the requirement of knitting. The V-shaped loop d ends are only capable in a non-knitted strip.



As to Claims 15-17, these claims further limit the scope of now allowable independent Claim 1. As a result, Claims 15-17 are now allowable over the cited prior art.

In view of the foregoing, Cook fails to anticipate Claims 1, 3-5, 8, 10-17. As a result, these claims are allowable over the cited prior art.

IV. Rejection of Claims 2, 6-7, 9, 14 and 18 under Section 103

A. Claims 6 and 18

Claims 6 and 18 stand rejected as being unpatentable over Cook et al. '567.

Claims 6 and 18 depend from now allowable Claim 1. Therefore, Applicant submits that Claims 6 and 18 are now also allowable over the cited prior art. Therefore, Cook '567 fails render obvious Claims 6 and 8 under Section 103. Claims 6 and 8 are patentable over the cited prior art.

B. Claim 2

Claim 2 stands rejected as being unpatentable over Cook et al. '567 in view of Keys '101.

The office action states that Cook teaches the inventions substantially as claimed with the exception of the use of filler material within the voids defined by the undulating wire members. The office action states that it would be obvious to one of ordinary skill in the art for Cook to use the filler of Keys.

Keys teaches a laminate flexible strip that includes an array of separate parallel transverse members that are held in place by magnets during the extrusion process. As stated above, parallel transverse member are highly desirable for improved roll forming. However, Keys suffers for the drawbacks of a complicated and tedious extrusion process that employs multiple individual transverse members. Thus, the strip of Keys cannot be economically manufactured. Since the Keys strip uses individual strips, the



cut free nds can pierce through the sides of the strip resulting in a dang rous porcupin effect.

The present invention avoids the aforesaid problems by providing a single piece of undulating wire, rather than separate wire members, with longitudinally running reinforcement members thereon, such as fiber strands or mask film.

As to the limitations of Claim 2, there is no suggestion or teaching why Cook would have any desire to fill the voids in the wire with the filler of Keys in light of the knitting thereon. Keys employs filler in its parallel separate clip configuration. As a result, there is no suggestion or teaching in Keys for use of filler in a knitted wire environment.

Moreover, Claim 2 is dependent on now allowable Claim 1. Therefore, Claim 2 is now allowable over the cited prior art.

Therefore, the combination of Cook '567 and Keys '101 fail to render obvious Claim 2 under Section 103. Therefore, Claim 2 is patentable over the cited prior art.

C. Claims 7 and 9

Claims 7 and 9 stand rejected as being unpatentable over Cook et al. in view of Kenney et al. '198.

Claims 7 and 9 depend from now allowable Claim 1. Therefore, Applicant submits that Claims 7 and 9 are now also allowable over the cited prior art. Therefore, Cook '567 fails render obvious Claims 7 and 9 under Section 103. Claims 7 and 9 are patentable over the cited prior art.

Therefore, the combination of Cook '567 and Kenney et al. '198 fail to render obvious Claims 7 and 9 under Section 103. Therefore, Claims 7 and 9 are patentable over the cited prior art.

D. <u>Claim 14</u>

Claim 14 stands rejected as being unpatentable over Weichman '033 in view of Cook et al. '567



Weichman fails to disclose a V-shaped junction at the loops of the undulating. Weichman, in contrast, teaches looping ends of a U-shape. See Fig. 3 of Weichman. Even assuming Weichman and Cook are combinable under Section 103, Applicant invention in Claim 14, as amended, is not shown.

Therefore, the combination of Weichman '033 and Cook '567 fail to render obvious Claim 14 under Section 103. Therefore, Claim 14 is patentable over the cited prior art.

V. New Claims 33-38

Applicant has added new Claims 33-38 to further define the present invention. More specifically, new Claims 33-37 address the embodiment of the present invention shown in Figs. 9-11 where a mask, such as a film, is used for targeted control of the hungry horse problem while simultaneously controlling the elongation of the strip. The prior art is devoid of any such teaching of a mask as taught in Claims 33-37.

New Claim 38 sets forth an embodiment of the present invention, such as in Fig. 5, where the undulating wire is asymmetrical about the longitudinal center line running along the length of the strip. Since knitting is not used, flexibility of wire design can be achieved. For example, the wire configuration of Fig. 5 provides U-shaped loops on the right side and V-shaped junctions on the left to address a particular application at hand. This wire configuration could not be possible if the undulating wire required knitting in any way. Since Applicant's invention does not employ knitting, unique wire configurations, such as that shown in Fig. 5, can be achieved.

VI. <u>Conclusion</u>

Applicant submits that Claims 1-18 and new Claims 33-38 are allowable over the cited prior art. In view of the above, Applicants submit that pending Claims 1-18 and 33-38 are now in condition for allowance. Reconsideration of the Rejections and Objections are requested. Allowance of Claims 1-18 and 33-38 at an early date is solicited.

BJH

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If an extension of time is required for time by submission of this responses 2003

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PAGE 13/13 Applicant hereby petitions for an appropriate extension of time and the Office is authorized to charge Deposit Account 02-0900 for the appropriate additional fees in connection with the filing of this response.

The Examiner is invited to telephone the undersigned should any questions arise.

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Respectfully submitted.

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